

AMENDMENTS TO THE SPECIFICATION

Please replace original paragraph 29 with the following amended paragraph:

[0029] At least one primary heater 44 for heating the first manifold section 32 to a first elevated temperature range suitable for conducting the melted plastics material without significant thermal degradation is provided. In the embodiment of Figure 1, the primary heater comprises an electrical tubular heater that extends around the vertical, outer surface of the manifold section 32. The illustrated electrical heater is mounted in an elongate groove 46 formed in the surface of the manifold section. The use of such tubular electric heaters is well known in the hot runner system art and accordingly a detailed description herein is deemed unnecessary. There is also at least one secondary heater 46 47 for heating the second manifold section to a second temperature range which is hotter than the first temperature range and which heats the melted plastics material to the second temperature range which is suitable for injecting the melted plastics material into at least one mold cavity. In Figure 1, there are two mold cavities 48 which are arranged along a mold parting line 50. The mold cavities can in fact be micro cavities, that is very small cavities designed to mold micro parts. Meeting at the parting line 50 are a movable core plate 52 and a cavity plate 54 for cavity inserts. Coolant passageways can be formed at 56 and 58 in the core plate and cavity plate respectively. These plates are typically maintained at a temperature in the range of 200 to 400 degrees C. and it will be understood that the actual temperature selected in this range will depend upon the particular type of plastic being molded. Representative coolant passages 60 and 62 are also shown in the manifold mold plate 26 and in the clamp plate 22 and it will be understood that a suitable coolant is circulated through these passageways to maintain these plates at the precise, desired temperature for operation of

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the mold apparatus and the hot runner system. Although not shown in Figure 1, the mold cavities 48 are typically formed in mold inserts that can be readily and securely mounted in the core plate so that the mold apparatus can be used to make a wide variety of small parts, if desired.

Please replace original paragraph 31 with the following amended paragraph:

[0031] The preferred check valve 65 will now be described in detail with particular reference to Figures 3 and 4. The check valve 65 includes a valve chamber 70 and a ball 72 movable within the chamber 70 between the valve closing position (shown in Figure 4) at an upstream side 74 of the valve chamber and a valve open position, shown in Figure 3, at a downstream side 76. The direction of flow of the hot, melted plastics material through the check valve is indicated by the arrows A in Figure 3. The ball 72 preferably is a hardened steel ballbearing and, as illustrated in Figures 3 and 4, the ball and the chamber can be located at the end of a short, relatively narrow, melt bore or conduit 78. In the simplified version of Figures 3 and 4, the conduit 78 is shown as extending directly from a plasticizing chamber 80 of an extruder barrel 16, only a portion of which is shown. Thus, in this simplified version, there is only one plasticizing unit 12 for each check valve and for each metering apparatus 66. However, in the preferred version illustrated in Figure 1, there is a short, narrow branch bore 82 that extends horizontally from a main feed bore 84, these bores forming part of the aforementioned first conduit system 40. A relatively large, connecting bore 86 87 extends between the inlet 38 of the manifold and the main feed bore 84.